

Glossary of Terms

anadromous – Migrating up rivers from the sea to breed in fresh water.

aromatic – Of, related to, or containing the six-carbon ring typical of the benzene series and related organic groups.

bioconcentration factor (BCF) – The ratio of the tissue concentration of an aquatic organism to the water concentration where uptake is limited to water alone, usually derived in an experimental setting.

borrow pit – The excavation site used to obtain geological resources (such as sand, gravel, basalt rocks, or fine sediments).

caisson – As used in the HSW EIS, these structures are reinforced cylindrical steel and concrete underground vaults 2.4 m (8 ft) in diameter and 3-m (10-ft) high designed to store remote-handled waste in the low level burial grounds

candidate species – Plants and animals with a status of concern, but about which more information is needed before they can be proposed for listing as threatened species or endangered species. A state candidate species is one that is being reviewed for possible listing as a state endangered, threatened, or sensitive species as specified by the Washington State Department of Fish and Wildlife. See also endangered species, threatened species, and species of concern.

cap – A cap used to cover a radioactive burial ground with soil, rock, vegetation, or other materials as part of the facility closure process. The cap is designed to reduce migration of radioactive and hazardous materials in the waste by infiltration of water or by intrusion of humans, plants, or animals from the surface. In this EIS, the Modified RCRA Subtitle C Barrier was selected to use as a cap for LLW and MLLW disposal grounds. (Also called “cover cap” and “barrier” in this EIS.)

capping – As applied to radioactive and mixed-waste disposal facilities, the process of covering a burial ground with soil, rock, vegetation, or other materials as part of the facility closure process. The cap is designed to reduce migration of radioactive and hazardous materials in the waste by infiltration of water or by intrusion of humans, plants, or animals from the surface.

carcinogen – Any substance that can cause cancer.

cask – A heavily shielded container used to store or ship radioactive materials.

Category 1 low-level waste – Low-level radioactive waste containing radionuclide concentrations within the maximum limits defined for this waste type in the HSSWAC. These limits are site-specific, and they define the lowest activity category of low-level radioactive waste. Category 1 wastes typically do not require special packaging or treatment for disposal by shallow land burial.

1 **Category 3 low-level waste** – Low-level radioactive waste containing radionuclide concentrations greater
2 than those defined for Category 1 waste, but within the maximum limits defined for Category 3 waste in
3 the HSSWAC. These limits are site-specific, and are established using the performance assessment for a
4 particular disposal facility. Category 3 wastes typically require special packaging or treatment for
5 disposal by shallow land burial.

6
7 **characterization** – See waste characterization.

8
9 **chemical oxidation** – Oxidation of a material by adding chemicals such as peroxide, ozone, persulfates,
10 or other oxidizing material. Commonly used for oxidation of organic constituents.

11
12 **chemical reduction** – Reduction of a material by adding chemicals such as sulfites, polyethylene glycol,
13 hydrosulfide, or ferrous salts. Commonly used for the reduction of hexavalent chromium to the trivalent
14 state. In all these cases, the reduced forms of the contaminant are much less mobile in the environment
15 because of their low solubility and high adsorption to soils. Microbiological reduction of these waste
16 constituents also has been found to occur naturally in sediment and aquifer environments and with
17 addition of chemical food sources to enhance the microbe growth rates reductive biological remediation is
18 becoming more economical.

19
20 **cleanup** – The term cleanup refers the full range of projects and activities being undertaken to address
21 environmental and legacy waste issues associated with the Hanford Site.

22
23 **closure** – As applied to radioactive and hazardous waste disposal facilities, the process of site
24 stabilization and placement of caps or other barriers to provide long-term confinement of the waste.
25 Requirements for closure are defined by laws, regulations, or orders for various types of waste
26 management facilities.

27
28 **contact-handled (CH) waste** – Generally, packaged waste whose external surface dose rate does not
29 exceed 200 mrem/hr and does not create a high radiation area (>100 mrem/hr at 30 cm). See also remote-
30 handled waste.

31
32 **crib** – An underground structure designed to receive liquid waste that can percolate into the soil directly
33 and/or after traveling through a connected tile field.

34
35 **criteria pollutants** – Six pollutants (carbon monoxide, suspended particulates of specified sizes, sulfur
36 dioxide, lead, nitrogen oxide, and ozone) known to be hazardous to human health or structures and for
37 which the U.S. Environmental Protection Agency (EPA) sets National Ambient Air Quality Standards
38 under the Clean Air Act (40 CFR 50^(a)).

39
40 **cullet** – Granular glass particles similar to coarse sand.
41

(a) 40 CFR 50. “National Primary and Secondary Ambient Air Quality Standards.” U.S. Code of Federal Regulations. Online at: http://www.access.gpo.gov/nara/cfr/waisidx_01/40cfr50_01.html.

1 **cumulative impacts (effects)** – Impact on the environment that results from the incremental impact of the
2 action when added to other past, present, and reasonably foreseeable future actions regardless of what
3 agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result
4 from individually minor but collectively significant actions taking place over a period of time.

5
6 **dangerous waste** – Solid waste designated in WAC 173-303-070^(a) through WAC 173-303-100 as
7 dangerous or extremely hazardous waste, or mixed waste.

8
9 **deactivation** – As applied to waste treatment, the removal of the hazardous characteristics of a waste due
10 to its ignitability, corrosivity, and or reactivity.

11
12 **decibel** – A standard unit of sound pressure. The decibel is a value equal to 10 times the logarithm of the
13 ratio of a sound pressure squared to a standard reference sound-pressure level (20 micropascals) squared.

14
15 **decommissioning** – Final actions taken to reduce the potential health and safety impacts of U.S.
16 Department of Energy (DOE)-contaminated facilities, including activities to stabilize, reduce, or remove
17 radioactive and hazardous materials, or to demolish the facilities.

18
19 **decontamination** – The removal, reduction, or neutralization of radionuclides and/or hazardous materials
20 from contaminated facilities, equipment, or soils by washing, heating, chemical or electrochemical action,
21 mechanical cleaning, or other techniques.

22
23 **deterministic analysis** – A single calculation using only a single value for each of the model parameters.
24 A deterministic system is governed by definite rules of system behavior leading to cause and effect
25 relationships and predictability. Deterministic calculations do not account for uncertainty in the physical
26 relationships or parameter values. See stochastic analysis.

27
28 **disposal** – As generally used in this document, placement of waste with no intent to retrieve. Statutory or
29 regulatory definitions of disposal may differ.

30
31 **dose** – The accumulated radiation or hazardous substance delivered to the whole body, or a specified
32 tissue or organ, within a specified time interval, originating from an external or internal source.

33 **effluent** – Airborne and liquid wastes discharged from a DOE site or facility. This term does not include
34 solid wastes, wastes for shipment offsite, wastes that are contained (for example, underground nuclear test
35 debris) or stored (for example, in tanks) or wastes that are to remain onsite through treatment or disposal.

36
37 **endangered species (Federal)** – Plants or animals that are in danger of extinction throughout all or a
38 significant portion of their ranges and have been listed as endangered by the U.S. Fish and Wildlife
39 Service or the National Marine Fisheries Service, following the procedures set out in the Endangered
40 Species Act and its implementing regulations (50 CFR 424^b).

(a) WAC 173-303. “Dangerous Waste Regulations.” Washington Administrative Code, Olympia, Washington.
Online at: <http://www.leg.wa.gov/wac/index.cfm?fuseaction=Section&Section=173-303-040>.

(b) 50 CFR 424. “Listing Endangered and Threatened Species and Designating Critical Habitat.” U.S. Code of
Federal Regulations. Online at: http://www.access.gpo.gov/nara/cfr/waisidx_01/50cfr424_01.html.

1 **endangered species (State)** – Washington State defines endangered species as any wildlife species native
2 to the state of Washington that is seriously threatened with extinction throughout all or a significant
3 portion of its range within the state (WAC 232-12-297^a). See also candidate species and threatened
4 species.

5
6 **eolian** – Pertaining to, caused by, or carried by the wind.

7
8 **ERPG-1** – The maximum concentration in air below which it is believed nearly all individuals could be
9 exposed for up to one hour without experiencing other than mild transient adverse health effects or
10 perceiving a clearly defined objectionable odor.

11
12 **ERPG-2** – The maximum concentration in air below which it is believed nearly all individuals could be
13 exposed for up to one hour without experiencing or developing irreversible or other serious health effects
14 or symptoms that could impair their abilities to take protective action.

15
16 **ERPG-3** – The maximum concentration in air below which it is believed nearly all individuals could be
17 exposed for up to one hour without experiencing or developing life-threatening health effects.

18
19 **Evolutionarily Significant Unit (ESU)** – A distinctive group of Pacific salmon, steelhead, or sea-run
20 cutthroat trout.

21
22 **Federal species of concern** – Species whose conservation standing is of concern to the U.S. Fish and
23 Wildlife Service but for which status information still is needed.

24
25 **fluvial** – Produced by the action of flowing water.

26
27 **french drain** – A rock-filled encasement with an open bottom to allow seepage of liquid waste into the
28 ground.

29 **generator** – Within the context of this document, generators refer to organizations within DOE or
30 managed by DOE whose act or process produces low-level waste, mixed low-level waste, or transuranic
31 waste.

32
33 **graded approach** – A process by which the level of analysis, documentation, and actions necessary to
34 comply with a requirement are commensurate with 1) the relative importance to safety, safeguards, and
35 security; 2) the magnitude of any hazard involved; 3) the life cycle stage of a facility; 4) the programmatic
36 mission of a facility; 5) the particular characteristics of a facility; and 6) any other relevant factor.

37
38 **greater than Category 3 (GTC3) low-level waste** – Low-level radioactive waste that exceeds the
39 maximum radionuclide concentrations as defined for Category 3 low-level waste. See also Category 3
40 waste.

(a) WAC 232-12-297. “Endangered, threatened, and sensitive wildlife species classification.” Washington
Administrative Code, Olympia, Washington. Online at:
<http://www.leg.wa.gov/wac/index.cfm?fuseaction=Section&Section=232-12-297>.

1 **Hanford Federal Facility Agreement And Consent Order** – See Tri-Party Agreement.

2
3 **hazardous waste** – Waste that contains chemically hazardous constituents regulated under Subtitle C of
4 the Resource Conservation and Recovery Act (RCRA), as amended (40 CFR 261^a) and regulated as a
5 hazardous waste and/or mixed waste by the EPA. May also include solid waste designated by
6 Washington State in WAC 173-303-070^(b) through WAC 173-303-100 as dangerous or extremely
7 hazardous waste, or mixed waste. See also mixed low-level waste.

8
9 **high-integrity container (HIC)** – A container that provides additional confinement for high-activity low-
10 level waste, typically constructed of concrete or other durable material.

11
12 **high-level (radioactive) waste (HLW)** – High-level waste is the highly radioactive waste material
13 resulting from the processing of spent nuclear fuel, including liquid waste produced directly in processing
14 and any solid material derived from such liquid waste that contains fission products in sufficient
15 concentrations, and other highly radioactive material that is determined, consistent with existing law, to
16 require isolation.

17
18 **immobilization** – Placing the waste within a material such as concrete or a glass to immobilize (reduce
19 dispensability and leachability of) the radioactive or hazardous components within the waste. See also
20 stabilization.

21
22 **immobilized low-activity waste** – A specific mixed waste stream resulting from the immobilization of
23 low-activity waste (LAW) generated during the planned treatment and immobilization of Hanford tank
24 wastes in the Waste Treatment and Immobilization Plant (WTP) or in other supplemental treatment
25 processing of tank wastes. Most of the non-radioactive materials in the tank waste will be separated into
26 the LAW stream, while most of the radioactive materials will be separated into a much smaller amount of
27 high-level waste (HLW).

28
29 **lacustrine** – Of or pertaining to lakes.

30
31 **land-use designations:**

32
33 **Industrial-Exclusive** – An area suitable and desirable for treatment, storage, and disposal of
34 hazardous, dangerous, radioactive, non-radioactive wastes, and related activities.

35
36 **Conservation (Mining)** – An area reserved for the management and protection of archeological,
37 cultural, ecological, and natural resources. Limited and managed mining (for example, quarrying for
38 sand, gravel, basalt, and topsoil for governmental purposes only) could occur as a special use (i.e., a
39 permit would be required) within appropriate areas. Limited public access would be consistent with
40 resource conservation. This designation includes related activities.

(a) 40 CFR 261. “Identification and Listing of Hazardous Waste.” U.S. Code of Federal Regulations. Online at:
http://www.access.gpo.gov/nara/cfr/waisidx_01/40cfr261_01.html.

(b) WAC 173-303. *Dangerous Waste Regulations*. Washington Administrative Code, Olympia, Washington.
Online at: <http://www.leg.wa.gov/wac/index.cfm?fuseaction=chapterdigest&chapter=173-303>.

1
2 **latent cancer fatality (LCF)** – A cancer death postulated to result from, and occurring some time after,
3 exposure to ionizing radiation or other carcinogens.
4

5 **As applied to populations**, the postulated number of fatal cancers in a given population due to the
6 calculated or measured collective dose to that population as a result of a given action or activity.
7

8 **As applied to individuals**, the probability of a fatal cancer in a given individual due to the calculated or
9 measured dose received by that individual as a result of a given action or activity.
10

11 **leachate** – As applied to mixed low-level waste trenches, any liquid, including any suspended
12 components in the liquid, that has percolated through or drained from hazardous waste.
13

14 **lost workday cases (LWCs)** – Represent the number of cases recorded resulting in days away from work
15 or days of restricted work activity, or both, for affected employees.
16

17 **lost workdays (LWDs)** – The total number of workdays (consecutive or not), after the day of injury or
18 onset of illness, during which employees were away from work or limited to restricted work activity
19 because of an occupational injury or illness.
20

21 **low-activity waste** – The waste that remains after separating from high-level waste as much of the
22 radioactivity as practicable and that when solidified may be disposed of as low-level waste in a near
23 surface facility according to DOE requirements.
24

25 **low-income person** – A person living in a household that reports an annual income less than the United
26 States official poverty level, as reported by the U.S. Census Bureau.
27

28 **low-level (radioactive) waste (LLW)** – Radioactive waste, including accelerator-produced waste, that is
29 not high-level waste, spent nuclear fuel, transuranic waste, byproduct material (as defined in section
30 11e[2] of the Atomic Energy Act of 1954, as amended), or naturally occurring radioactive material.
31

32 **macroencapsulation** – Treatment method applicable to debris wastes as defined by RCRA. Refers to
33 application of surface coating materials, such as polymeric organics (for example, resins and plastics) or
34 of a jacket of inert material to reduce surface exposure to potential leaching media.
35

36 **maximally exposed individual (MEI)** – The maximally exposed individual is a hypothetical person who
37 has a lifestyle, and is in a location, such that that any other individual would be unlikely to receive a
38 higher exposure to radiation or hazardous materials. The MEI may be an individual who resides or works
39 near the Hanford Site, or who is temporarily at a publicly accessible location where the maximum dose
40 from a short-term event would occur.
41

42 **Microbiotic (cryptogamic) crusts** – generally occur in the top 1 to 4 mm of soil and are formed by living
43 organisms and their by-products, creating a crust of soil particles bound together by organic materials.
44

1 **microencapsulation** – The encapsulation of waste components in the atomic structure of compounds or
2 materials such as glass, cement, or polymer waste forms.

3
4 **minority** – Individual(s) who are members of the following population groups: American Indian or
5 Alaskan Native; Asian or Pacific Islander; Black, not of Hispanic origin; or Hispanic.

6
7 **mixed low-level waste (MLLW)** – Low-level waste determined to contain both source, special nuclear,
8 or byproduct material subject to the Atomic Energy Act of 1954, as amended, and a hazardous component
9 subject to the Resource Conservation and Recovery Act (RCRA), as amended, or state dangerous waste
10 regulations. See also hazardous waste, dangerous waste.

11
12 **modular facility** – As used in this HSW EIS, a modular disposal facility would consist of a number of
13 expandable segments or areas within an overall master facility. Each module would be designed to
14 handle certain waste types or forms. For example remote handled wastes might be in a different area or
15 “module” than standard packages of contact handled low-level waste or mixed low-level waste.

16
17 **neutralization** – Changing the pH of a solution to near 7 by adding an acidic or basic material.

18
19 **no action alternative** – In this EIS, the no action alternative consists of continuing ongoing activities, but
20 does not include development of new capabilities to manage wastes that cannot currently be disposed of.

21
22 **noise** – Sound waves that are unwanted and perceived as a nuisance by humans.

23
24 **non-standard (packaging)** – Non-standard waste packages refer to specially designed waste containers
25 or packages used for large, or odd shaped low-level waste, mixed low-level waste or transuranic waste
26 items or items with high dose rates or other unique conditions. See also standard (packaging).

27
28 **normal operations** – As used in this HSW EIS, normal operations refers to routine waste management
29 activities, for example, waste treatment activities (including processing), packaging and repackaging,
30 storage, and final disposal of waste.

31
32 **order of magnitude** – An order of magnitude is an exponential change of plus-or-minus 1 in the value of
33 a quantity or unit. The term is generally used in conjunction with power-of-10 scientific notation.

34
35 **operational waste** – Solid wastes that are generated in support of cleanup activities, including such items
36 as contaminated personnel protective clothing, disposable laboratory supplies, and failed tools and
37 equipment.

38
39 **physical extraction** – Separation or removal of materials or components based on size or material
40 characteristic.

41
42 **PM₁₀** – Particulates with an aerodynamic diameter less than or equal to a nominal diameter of
43 10 micrometers.

1 **PM_{2.5}** – Particulates with an aerodynamic diameter less than or equal to a nominal diameter of
2 2.5 micrometers.

3
4 **pore water** – The amount of water effectively trapped or retained by a volume of soil.
5

6 **processing** – As used in this HSW EIS, refers to any activity necessary to prepare waste for disposal.
7 Processing waste may consist of repackaging, removal, or stabilization of non-conforming waste, or
8 treatment of physically or chemically hazardous constituents in compliance with state or federal
9 regulations.
10

11 **radioactive waste** – In general, waste that is managed for its radioactive content. Waste material that
12 contains source, special nuclear, or by-product material is subject to regulation as radioactive waste under
13 the Atomic Energy Act. Also, waste material that contains accelerator-produced radioactive material or a
14 high concentration of naturally occurring radioactive material may be considered radioactive waste.
15

16 **release** – Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping,
17 leaching, dumping, or disposing into the environment. Statutory or regulatory definitions of release may
18 differ.
19

20 **remedial action** – Activities conducted to reduce potential risks to people and/or harm to the
21 environment from radioactive and/or hazardous substance contamination. (See also cleanup.)
22

23 **remote-handled (RH) waste** – Packaged radioactive waste for which the external dose rate exceeds that
24 defined for contact-handled waste (generally 200 mrem/hr at the container surface). These wastes require
25 handling using remotely controlled equipment, or placement in shielded containers, to reduce the
26 potential for human exposures during routine waste management activities. See also contact-handled
27 waste.
28

29 **retrievably stored waste** – Waste stored in a configuration that is intended to permit retrieval at a future
30 time.
31

32 **review 1 species** – A plant taxon of potential concern that is in need of additional field work before a
33 status can be assigned.
34

35 **shrub-steppe** – Plant community consisting of short-statured, widely spaced, small-leaved shrubs,
36 sometimes aromatic, with brittle stems and an understory dominated by perennial bunchgrasses.
37

38 **sensitive species** – A taxon that is vulnerable or declining and could become endangered or threatened in
39 Washington without active management or removal of threats. The federal listings classify species as
40 listed (endangered/threatened), candidate, or proposed.
41

1 **seep** – 1) On the Columbia River, seepage occurs below the river surface and exposed riverbank,
2 particularly noticeable at low-river stage. The seeps flow intermittently, apparently influenced primarily
3 by changes in the river level. 2) "Seeps" also corresponds to releases of radionuclides and chemicals to
4 the unsaturated soil beneath the LLBGs that may occur as the waste packages degrade and water (from
5 rain and snow melt) "seeps" through the waste.

6
7 **site** – A geographic entity comprising leased or owned land, buildings, and other structures required to
8 perform program activities.

9
10 **species of concern** – Plants identified by the Washington Natural Heritage Program as sensitive
11 (vulnerable or declining and could become endangered or threatened), Review 1 (more field work
12 needed), or Review 2 (unresolved taxonomic problems). See also endangered species and threatened
13 species. The federal listings classify species as listed (endangered/threatened), candidate, or proposed.

14
15 **stabilization** – Mixing an agent such as Portland cement with the waste to increase the mechanical
16 strength of the resulting waste form and decrease its leachability.

17
18 **standard (packaging)** – Standard waste packages refer to the common forms of waste packages (such as
19 drums and boxes) used for low-level waste and mixed low-level waste. See also non-standard
20 (packaging).

21
22 **stochastic analysis** – Set of calculations performed using values randomly selected from a range of
23 reasonable values for one or more parameters; in contrast, see deterministic analysis. In the HSW EIS,
24 the median value was reported.

25
26 **stochastic variability** – Natural variation of a measured quantity; for example, in a room full of people,
27 there is an average height with some being taller and some shorter; the stochastic variability of that group
28 is described by the differences between the individuals' heights and the average.

29
30 **storage** – The holding of waste for a temporary period, at the end of which the waste is treated, disposed
31 of, or stored elsewhere.

32
33 **taxa** – Plural of taxon.

34
35 **taxon** – A group of organisms sharing common characteristics in varying degrees of distinction that
36 constitute one of the categories of taxonomic classification, such as a phylum, class, order, family, genus,
37 or species.

38
39 **TEEL-1** – The maximum concentration in air below which it is believed nearly all individuals could be
40 exposed without experiencing other than mild transient adverse health effects or perceiving a clearly
41 defined objectionable odor.

42
43 **TEEL-2** – The maximum concentration in air below which it is believed nearly all individuals could be
44 exposed without experiencing or developing irreversible or other serious health effects or symptoms that
45 could impair their abilities to take protective action.

1 **TEEL-3** – The maximum concentration in air below which it is believed nearly all individuals could be
2 exposed without experiencing or developing life-threatening health effects.

3
4 **threatened species** – Any plants or animals that are likely to become endangered species within the
5 foreseeable future throughout all or a significant portion of their ranges, and which have been listed as
6 threatened by the U.S. Fish and Wildlife Service or the National Marine Fisheries Service following the
7 procedures set out in the Endangered Species Act and its implementing regulations (50 CFR 424^(a)).
8 Washington State defines threatened species as any wildlife species native to the state of Washington that
9 is likely to become an endangered species within the foreseeable future throughout a significant portion of
10 its range within the state (WAC 232-12-297^(b)). See also candidate species and endangered species.

11
12 **teleost fish** – Of or belonging to the Teleostei or Teleostomi, a large group of fishes with bony skeletons,
13 including most common fishes. The teleosts are distinct from the cartilaginous fishes such as sharks,
14 rays, and skates.

15
16 **total recordable cases (TRCs)** – Work-related deaths, illnesses, or injuries resulting in loss of
17 consciousness, restriction of work or motion, transfer to another job, or required medical treatment
18 beyond first aid.

19
20 **Toxic Substances Control Act (TSCA) waste** – Any waste, including polychlorinated biphenyl
21 commingled waste, regulated under the TSCA requirements codified in 40 CFR 761.^(c)

22
23 **toxicological impact** – Impact on human health, due to exposure to, or intake of, chemical materials.
24 These impacts are typically described in terms of damage to affected organs.

25
26 **transuranic isotope** – Any element having an atomic number greater than 92 (the atomic number of
27 uranium).

28
29 **transuranic (TRU) waste** – Transuranic waste is radioactive waste containing more than 100 nanocuries
30 (3700 becquerels) of alpha-emitting transuranic isotopes per gram of waste, with half-lives greater than
31 20 years, except for the following:
32

(a) 50 CFR 424. “Listing Endangered and Threatened Species and Designating Critical Habitat.” U.S. Code of Federal Regulations. Online at: http://www.access.gpo.gov/nara/cfr/waisidx_01/50cfr424_01.html.

(b) WAC 232-12-297. “Endangered, threatened, and sensitive wildlife species classification.” Washington Administrative Code, Olympia, Washington. Online at: <http://www.leg.wa.gov/wac/index.cfm?fuseaction=Section&Section=232-12-297>.

(c) 40 CFR 761. “Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution In Commerce, and Use Prohibitions.” U.S. Code of Federal Regulations. Online at: http://www.access.gpo.gov/nara/cfr/waisidx_01/40cfr761_01.html.

- high-level radioactive waste
 - waste that the Secretary of Energy has determined, with the concurrence of the Administrator of the Environmental Protection Agency, does not need the degree of isolation required by the 40 CFR Part 191 disposal regulations
- waste that the Nuclear Regulatory Commission has approved for disposal on a case-by-case basis in accordance with 10 CFR 61.^(a)

Tri-Party Agreement (TPA) – Informal title for the “Hanford Federal Facility Agreement and Consent Order,” an agreement between the U.S. Department of Energy, the U.S. Environmental Protection Agency, and the Washington State Department of Ecology. The agreement establishes milestones to bring operating DOE facilities into compliance with the RCRA, and to coordinate cleanup of Hanford’s inactive disposal sites under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

treatment – The physical, chemical, or biological processing of dangerous waste to make such waste non-dangerous or less dangerous, safer for transport, amenable for energy or material resource recovery, amenable for storage, or reduced in volume, with the exception of compacting, repackaging, and sorting as allowed under WAC 173-303-400^(b) and 173-303-600.^(b)

trench grouting – In-trench grouting involves placing the waste on a cement pad or on spacers, installing reinforcement steel and forms around the waste, and covering the waste with fresh concrete to encapsulate the waste within a concrete barrier.

vadose zone – The soil layer between the ground surface and the top of the saturated zone.

waste characterization – The identification of waste composition and properties, whether by review of process knowledge, or by non-destructive examination, non-destructive assay, or sampling and analysis, to determine appropriate storage, treatment, handling, transportation, and disposal requirements.

waste certification – A process by which a waste generator certifies that a given waste or waste stream meets the waste acceptance criteria of the facility to which the generator intends to transfer waste for treatment, storage, or disposal.

(a) 10 CFR 61. “Licensing Requirements for Land Disposal of Radioactive Waste.” U.S. Code of Federal Regulations. Online at: http://www.access.gpo.gov/nara/cfr/waisidx_02/10cfr61_02.html.

(b) WAC 173-303. “Dangerous Waste Regulations.” Washington Administrative Code. Olympia, Washington. Online at: <http://www.mrsc.org/mc/wac/WAC%20173%20%20TITLE/WAC%20173%20-303%20%20CHAPTER/WAC%20173%20-303%20-400.htm>.

1 **waste container** – Any portable device in which a material is stored, transported, treated, disposed, or
2 otherwise handled (WAC 173-303-040^(a)). A waste container may include any liner or shielding material
3 that is intended to accompany the waste in disposal. At Hanford, waste containers typically consist of
4 55-gal (208-L) or 85-gal (320-L) drums and standard waste boxes. Other sizes and styles of containers
5 may also be employed depending on the physical, radiological, and chemical characteristics of the waste.
6

7 **waste disposal** – See disposal.
8

9 **waste life cycle** – The life of a waste from generation through storage, treatment, transportation, and
10 disposal.
11

12 **waste stream** – A waste or group of wastes from a process or a facility with similar physical, chemical,
13 or radiological properties. In the context of this document, a waste stream is defined as a collection of
14 wastes with physical and chemical characteristics that will generally require the same management
15 approach (that is, use of the same storage, treatment, and disposal capabilities).
16

17 **waste type** – In the context of this document, three waste types managed by the solid waste program are
18 defined: low-level waste, mixed low-level waste, transuranic waste, and waste treatment plant waste
19 (ILAW and melters).
20

21 **Watch List species** – A category of plant species of concern as identified by the Washington Natural
22 Heritage Program. Watch List species consist of those plant taxa of concern that are more abundant
23 and/or less threatened than previously assumed.
24

(a) WAC 173-303040. “Dangerous Waste Regulations.” Washington Administrative Code, Olympia, Washington.
Online at: <http://www.mrsc.org/mc/wac/WAC%20173%20%20TITLE/WAC%20173%20-303%20%20CHAPTER/WAC%20173%20-303%20-400.htm>.